# AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.; the "Act") and Chapter 342D, Hawaii Revised Statutes, and Chapters 11-54 and 11-55, Administrative Rules, Department of Health, State of Hawaii,

#### **GROVE FARM PROPERTIES, INC.**

| (hereinafter "PERMITTEE"),  |
|---|
| is authorized to discharge water associated with potable water production,  |
| through Outfall Serial No. 001,   |
| located at Latitude 22°01'12" N, Longitude 159°23'47" W,  |
| to the receiving waters named the Kapaia Reservoir,   |
| from its Grove Farm Water Treatment Facility (hereinafter "FACILITY"),  |
| located in Lihue, Kauai, Hawaii, TMK: (4) 3-8-002:002,  |
| in accordance with the effluent limitations, monitoring requirements and other conditions set forth herein, and in the attached Department of Health "Standard NPDES Permit Conditions" dated December 31, 2002.  |
| All reference to Title 40 of the Code of Federal Regulations (CFR) are to regulations that are in effect on July 1, 2001, except as otherwise specified. Unless otherwise specified herein, all terms are defined as provided in the applicable regulations in Title 40 of the CFR. |
| This permit will become effective on  |
| This permit and the authorization to discharge will expire at midnight, <b><five b="" from<="" years=""> <b>the date of issuance.&gt;</b></five></b>  |
| Signed this day of, 2004  |
| (For) Director of Health  |

#### TABLE OF CONTENTS

#### PART A EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- 1. Numerical Limitations
- 2. Visual Limitations
- 3. Other Requirements

#### PART B WHOLE EFFLUENT TOXICITY TESTING

- 1. Acute Toxicity Testing
- 2. Toxicity Reduction Evaluation
- 3. Reporting
- 4. Sampling Frequency Reduction

# PART C REPORTING REQUIREMENTS

- 1. Monitoring Results
- 2. Noncompliance

### PART D OTHER REQUIREMENTS

- 1. Detention Basin Maintenance Program
- 2. Schedule of Submission
- 3. Schedule of Facility Maintenance

#### PART E LOCATION MAP

STANDARD NPDES PERMIT CONDITIONS (dated December 31, 2002)

# A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the effective date of this permit and lasting until **five (5) years from the date of issuance of this permit**, the Permittee is authorized to discharge overflows from the facility's detention basin, through Outfall Serial No. 001. The discharges shall be limited and monitored by the Permittee as specified below.

#### 1. Numerical Limitations

| Parameter                               | Discharge<br>Limitation              | Unit              | Minimum<br>Frequency    | Sample Type             |
|---|--------------------------------------|-------------------|-------------------------|-------------------------|
| Flow                                    | N/L                                  | Gallons           | Once/Month <sup>1</sup> | Estimated or Calculated |
| Total Suspended<br>Solids               | 20 <sup>3</sup><br>10 <sup>4</sup>   | mg/l              | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| Turbidity                               | 5.0 <sup>3</sup><br>2.0 <sup>4</sup> | NTU               | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| pH Range                                | 5.5 - 8.0                            | Standard<br>Units | Once/Month <sup>1</sup> | Grab <sup>2,5</sup>     |
| Total Residual<br>Chlorine              | 0.19                                 | μg/l              | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| Total Recoverable<br>Aluminum           | 260 <sup>6</sup>                     | μg/l              | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| Total Recoverable<br>Chromium           | 11 <sup>6</sup>                      | μg/l              | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| Total Recoverable<br>Copper             | 6 <sup>6</sup>                       | μg/l              | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| Total Recoverable<br>Barium             | Report Result                        | μg/l              | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |
| Bromide                                 | Report Result                        | μg/l              | Once/Month 1            | Grab <sup>2</sup>       |
| Fecal Coliform                          | 200 7                                | #/100 ml          | Once/Month 1,7          | Grab <sup>2</sup>       |
| Whole Effluent<br>Toxicity <sup>8</sup> | 80% Survival in 100%<br>Effluent     |                   | Once/Month <sup>1</sup> | Grab <sup>2</sup>       |

N/L No limitation. Only monitoring and reporting required.

 $\begin{array}{ccc} mg/l & Milligrams \ per \ liter \\ NTU & Nephelometric \ turbidity \ units \\ \mu g/l & Micrograms \ per \ liter \\ \end{array}$ 

ml Milliliter

# PART A PERMIT NO. HI 0021824 Page 4

- "Once/Month" shall mean once per calendar month.
- A grab sample means an individual sample collected at a randomly-selected time over a period not exceeding 15 minutes.
- This limitation shall be in effect during the wet season (November 1 to April 30).
- This limitation shall be in effect during the dry season (May 1 to October 31).
- The Permittee shall measure the pH within 15 minutes from the time the sample was taken.
- The Department of Health may modify the numerical effluent limitation when a sitespecific translator between the dissolved fraction and total recoverable forms has been developed by the Permittee and approved by the Director of Health (Director).
- If this limitation is exceeded in one grab sample, then the Permittee may collect more samples such that the geometric mean of ten or more samples collected during any 30 day period does not exceed 200 per 100 milliliters and not more than ten percent of the samples shall exceed 400 per 100 milliliters for the same period of time. The Permittee shall not be considered in violation of this condition if the geometric mean, as defined above, can be met.
- The Permittee shall perform whole effluent toxicity testing in accordance with Part B of this permit.

#### 2. Visual Limitations

- a. The Permittee shall not discharge materials that will settle to form objectionable sludge or bottom deposits.
- b. The Permittee shall not discharge floating debris, oil, grease, scum, or other floating materials.
- c. The Permittee shall not discharge soil particles or other materials resulting from erosion associated with the discharge entering the receiving waters.

#### 3. Other Requirements

- a. The Permittee shall conduct monitoring in accordance with test procedures approved under 40 CFR Part 136 with detection limits low enough to measure compliance with the discharge limitations specified in the table above. For cases where the discharge limitation is below the lowest detection limit of the appropriate test procedure, the test method with the lowest detection limit shall be used.
- b. The Permittee shall periodically evaluate the treatment system in order to ensure compliance with the limitations specified above and the basic water quality criteria as specified in Section 1 of the attached Standard NPDES Permit Conditions.

# B. WHOLE EFFLUENT TOXICITY LIMITATIONS AND MONITORING REQUIREMENTS

#### 1. Acute Toxicity Testing

#### a. Limitation

The acute toxicity discharge limitation is specified in Part A.1 of this permit. Acute toxicity is defined by less than 80% species survival in 100% effluent.

#### b. Testing Procedures

- (1) The Permittee shall conduct the acute toxicity testing in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA-821-R-02-012, Fifth Edition, October 2002).
- (2) If necessary, the Permittee may adjust the salinity of a discharge using salts to allow testing with marine species.
- (3) If the Permittee ships the samples off-island to a contract laboratory, then the Permittee shall use one grab sample for all renewal solutions. The Permittee may conduct tests using locally available species at ambient temperature.

#### c. Species Selection

- (1) The Permittee shall select one species for monitoring from the EPA manual identified in Part B.1.b(1).
- (2) The Permittee shall submit the selection to the Director for approval within 60 days from the issuance date of this permit.
- (3) The Permittee shall obtain written approval from the Director before changing the selected species after the initial notification.

#### 2. Toxicity Reduction Evaluation (TRE)

a. Preparation of Initial Investigation TRE Workplan

The Permittee shall submit an initial investigation TRE Workplan (approximately 1-2 pages) within 120 days from the effective date of this permit. This Workplan shall describe steps which the Permittee intends to

# PART B PERMIT NO. HI 0021824 Page 6

follow in the event that toxicity is detected, and at a minimum, shall include the following:

- (1) Description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, and treatment system efficiency.
- (2) Description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility.
- (3) Identification of who (e.g. contract laboratory, etc.) will conduct the evaluation if a Toxicity Identification Evaluation (TIE) is necessary.
- b. Additional (Accelerated) Toxicity Testing
  - (1) If toxicity (as defined) is detected, then the Permittee shall conduct six additional tests, one approximately every 14 days, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within approximately 24 hours of receipt of the test results exceeding a toxicity discharge limitation (or threshold value).
  - (2) However, if implementation of the initial investigation TRE workplan indicates the source of toxicity, then the Permittee shall conduct only the first test of the six additional tests required above. If toxicity (as defined) is not detected in this first test, the Permittee may return to the normal sampling frequency required in Part A.1 of this permit. If toxicity (as defined) is detected in this first test, then Part B.2.c of this permit shall apply.
  - (3) If toxicity (as defined) is not detected in any of the six additional tests required above, then the Permittee may return to the normal sampling frequency required in Part A.1 of this permit.
- c. Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE)
  - (1) If toxicity (as defined) is detected in any of the six (6) additional tests, then, based on an evaluation of the test results and additional available information, the Director may determine that the Permittee shall initiate a TRE, in accordance with the Permittee's initial investigation TRE Workplan. Moreover, the Permittee shall develop and submit to the Director for approval a detailed TRE Workplan which includes:
    - (a) Further actions to investigate/identify the cause(s) of toxicity.

# PART B PERMIT NO. HI 0021824 Page 7

- (b) Actions the Permittee has taken/will take to mitigate the impact of the discharge, to correct the noncompliance, and to prevent the recurrence of toxicity.
- (c) Schedule under which these actions will be implemented.
- (2) As part of this TRE process, the Permittee may initiate a TIE using the test methods manuals, EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA/600/R-92/081 (Phase III), to identify the cause(s) of toxicity.
- (3) If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Part B.2.b of this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE.

#### 3. Reporting

a. The Permittee shall submit a full report of toxicity test results, including any toxicity testing required by Parts B.2.b and B.2.c of this permit, with the Discharge Monitoring Report (DMR) for the month in which the toxicity tests are conducted. A full report shall consist of: (1) toxicity test results; (2) dates of sample collection and initiation of each toxicity test; and (3) toxicity discharge limitation (or threshold value). Toxicity test results shall be reported according to the test methods manual chapter on Report Preparation.

If the initial investigation TRE workplan is used to determine that additional (accelerated) toxicity testing is unnecessary, these results shall be submitted with the DMR for the month in which investigations conducted under the TRE workplan occurred.

- b. Within 14 days of receipt of test results exceeding a toxicity discharge limitation, the Permittee shall provide written notification to the Director of:
  - (1) Findings of the TRE or other investigation to identify the cause(s) of toxicity.
  - (2) Actions the Permittee has taken/will take, to mitigate the impact of the discharge and to prevent the recurrence of toxicity.
  - (3) Implementation schedule for corrective actions when corrective actions, including a TRE, have not been completed.

# PART B PERMIT NO. HI 0021824 Page 8

(4) Reason for not taking corrective action, if no action has been taken.

#### 4. Sampling Frequency Reduction

- a. If the Permittee has not violated the whole effluent toxicity limitation after completing 24 months of testing, the Permittee may request a reduction in monitoring frequency for whole effluent toxicity.
- b. Any such reduction of the monitoring frequency for whole effluent toxicity must be approved by the Director in writing, and shall be at the Director's sole discretion.
- c. A reduction in frequency to not less than once per year shall be considered a minor modification for the purposes of 40 CFR Part 124.
- d. If the Permittee violates the whole effluent toxicity limitation after a reduction in monitoring frequency becomes in effect, the monitoring frequency shall return to once per month, as required by Part A.1 of this permit, for the duration of the permit.

Nothing in Part B waives any remedy or penalty applicable under Chapter 342D, Hawaii Revised Statutes.

#### C. REPORTING REQUIREMENTS

- 1. Monitoring Results
  - a. The Permittee shall summarize and report monitoring results on a Discharge Monitoring Report (DMR) Form (EPA No. 3320-1) in a format that allows direct comparison with the limitations and requirements of this permit.
  - b. The Permittee shall submit monthly DMRs postmarked no later than the 28<sup>th</sup> day of the month following the completed monitoring period. If there was no discharge during the month, then the DMR shall so state.
  - c. The Permittee shall submit duplicate signed copies of these, and all other reports required herein, to the Regional Administrator and the Director at the following addresses:
    - (1) Regional Administrator
       U.S. Environmental Protection Agency
       Region 9, Water Division
       CWA Compliance Office (WTR-7)
       75 Hawthorne street
       San Francisco, CA 94105
    - (2) Director of Health
       Department of Health
       Environmental Management Division
       Clean Water Branch
       919 Ala Moana Boulevard, Room 301
       Honolulu, HI 96814-4920

#### 2. Noncompliance

a. Oral Reports

The Permittee shall orally notify the Clean Water Branch at (808) 586-4309 within 24 hours when the following occurs:

- (1) Any exceedance of a pollutant limitation.
- (2) Any noncompliance which may endanger human health or the environment.

# PART C PERMIT NO HI 0021824 Page 10

(3) Any bypass or upset resulting in or contributing to a discharge to State waters.

#### b. Written Reports

- (1) For those noncompliances requiring oral reporting under Part C.2.a, the Permittee shall submit a written noncompliance report within five (5) days of the time the Permittee becomes aware of the noncompliance. The report shall be submitted to the Clean Water Branch at the address listed in Part C.1.c.
- (2) The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the amount of time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- (3) The Director may waive the written report and/or the five-day deadline on a case-by-case basis if the oral report has been received within 24 hours of the noncompliance.

#### D. OTHER REQUIREMENTS

1. Detention Basin Maintenance Program

The Permittee shall develop and implement a detention basin maintenance program to prevent the discharge of floating and settled solids within the detention basin. The Permittee shall perform maintenance on the detention basin in a manner which does not add pollutants to the discharge.

#### 2. Schedule of Submission

- a. The Permittee shall submit the an effluent monitoring program detailing the sampling requirements specified in Part A of this permit to the Director within 60 days after the effective date of this permit. The effluent monitoring program, at a minimum, shall include the following:
  - (1) Sampling locations.
  - (2) Sampling procedures.
  - (3) Test method to be used for each parameter.
  - (4) Quality Assurance/Quality Control methods.
- b. The Permittee shall submit the whole effluent toxicity testing species selection as required by Part B of this permit to the Director within 60 days after the effective date of this permit.
- c. The Permittee shall submit a description of the detention basin maintenance program required by Part D.1 of this permit to the Director within 90 days from the effective date of this permit. The detention basin maintenance program, at a minimum, shall include the following:
  - (1) Description of measures to be used to remove pollutants.
  - (2) Best management practices to be used while performing maintenance.
  - (3) Frequency at which each measure will be performed.
  - (4) Pollutant disposal methods.

# PART D PERMIT NO. HI 0021661 Page 12

d. The Permittee shall submit an initial investigation TRE workplan as specified in Part B.2.a of this permit to the Director within 120 days from the effective date of this permit.

#### 3. Schedule of Facility Maintenance

The Permittee shall submit a schedule for approval by the Director at least 14 days prior to any maintenance of facilities which might result in exceedance of effluent limitations. The schedule shall contain a description of the maintenance and its purpose; the period of maintenance, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent occurrence of noncompliance.

PART E PERMIT NO. HI 0021824 Page 13

# E. LOCATION MAP

see attached

07095PKP.04b